



The QUARAE



Volume 17 Issue 5

May 2016

Prez Says.

I was really glad to get back to Lawrence Park for the summer. The winter in Florida was too warm for me but of course that beats the white stuff you folks had up here. Some of the Spring flowers are out but not much going on with the trees yet and the weather is still a little cool but that's Erie.

We will start the monthly RAE club meetings at the clubhouse for the Summer and Fall, hot dogs at 6PM and club meeting at 7PM.

I would like to see more use of the radios that are available at the clubhouse. We have three stations set up and ready to go with various radios and antennas. The newest radio, a Kenwood 2000 also has an amplifier that will get the signal out. The equipment is there for the use of RAE members so please take the opportunity to use the radios, especially folks who don't have HF radios at home.

The RAE has been asked by the Lawrence Park Historical Society to participate in a festival celebrating 90 years as a township. They would like to see old radios from yesteryear!! If you have any old equipment that we could put on display please let me know. This may also be a way of sparking some interest in Amateur Radio at the festival.

Once again we have a busy Public Service schedule coming up this Summer starting out on May 1 at Penn State Behrend Campus for the March of Dimes. Please check out the listing of the coming events on the w3gv.org website. Let me know if you can help out.

Also take advantage of the various nets that are listed on the W3GV website. It is a good way of getting experience with net structure and a good way to meet new hams

THANKS & 73,

Doug AD4UL

April General Meeting Minutes

Began at 7 PM

Board Members and Officers Present: John Lindvay WB3IFD, Doug Sweet AD4UL (via Skype), Bob Fuller N3LBI, Frank Etzler N8WXQ, Ed Barlow K1KIT, Richard Quinn KB3ZVH, Gene Brinig KB3JZL, and Craig Hill K3PLV

Program: Frank Etzler gave a presentation of a D-Star hot spot. He used a Pipo Computer (a very small computer that has a touch screen, and runs on 12 volts), a ICOM 51A HT, and a D-Star dongle. Joe Shupienis W3BC the ARRL Affiliated Club Coordinator gave a talk about mentoring. Dave Wellman WX3E gave talk about ARES/RACES

New hams: Mike Morrison KC3GOC

Silent Keys: None

Visitors: Mr. and Mrs Benjamin Johnson, Larry Baumann, and Joe Shupienis W3BC,

Treasurer's report: \$824.37



**Radio Association of Erie
Club Meeting at the Club
House on Wagner Road
Thursday May 5 6PM for
Hot Dogs**

Program: TBA

Membership report: 22 Members. Letters were sent to last years members who have not renewed.

Facilities Report: There will be a cleanup and inventory on April 23

Repeater Report: A battery back up unit was donated by Rick Cutter WA3MKT, and a new battery was donated by John Lindvay WB3IFD for the echolink station.

Contesting Report: None

Old Business: Antennas are available from Ed Fong for those who ordered them

New Business: The Ripley Hamfest will take place Sunday, May 1. Ham operators are needed for the Walk of Dimes event at Behrend Campus also on May 1. See Doug Sweet AD4UL or Bob Fuller NB3LBI

Meeting end at 8:30 PM

Ripley, NY Hamfest

Sunday May 1, 2016 8AM to Noon

It is located at the Ripley Firehall South of US RT 20 on NY RT 76. Turn South at the traffic light. There will be ham radio, electronics, and computer items. Admission is only \$3. Tables are \$5 including admission. Call Fred Krause N2LXD at 716-708-9830 or Bob Fuller at 814-898-1115. Coffee and Breakfast items will be available.

Rope Rescue From German Bunker

A man had to be rescued after falling from the roof of a German bunker on to concrete below.

The Jersey Amateur Radio Club member had been up a ladder working on its clubhouse – the Signal Station at La Moye.

Firefighters used ropes to lower him in a stretcher to waiting paramedics.

The man, in his twenties, had injured his legs.



I came across this news piece when I read the news from the small country of Jersey, which is located off the coast of France. The club station is in a World War II German bunker that the Germans had built by Russian POWs and Alsatian Jews for communication purposes. During the war this bunker had a peaked roof so from the air it looked like a house. When the Jersey Amateur Radio Society moved their club station to this site they tore the peaked roof down. Actually there are two roofs, both of which held gun emplacements. I have been on these roofs many times. To get to them, you climb up metal rungs unto the roof and from the first roof there is a set of rungs to the

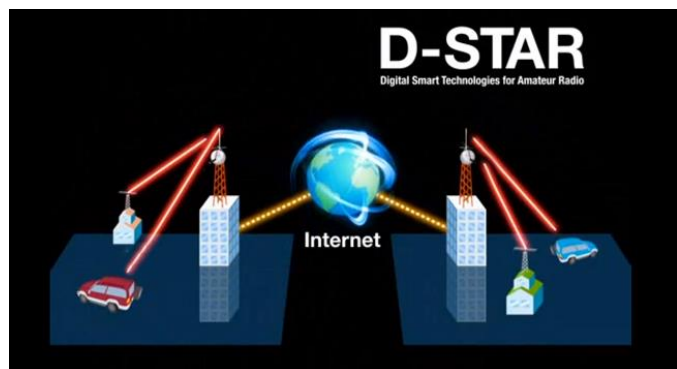
higher roof. The club's Optibeam had become damaged during a storm and needed repaired. Paul Ahier MJ0PMA climbed up a ladder standing against the wall. While working on the antenna he slipped and fell onto the lower roof. He had managed to turn himself in the fall and fortunately only hurt one foot, although he fell about 20 feet. But he was unable to walk or climb down the metal rungs so the club members called the paramedics who then called the fire department so they could lower him down to the ground on a stretcher. He suffered fractures of his foot and was able to go home later that day. I had visited with Paul back in November when I went over to operate. I'm glad he wasn't badly hurt.

Craig Hill K3PLV

D-Star For The Analog Guy

By KC Nicely KE3C

If you are a ham operator that enjoys talking on 2 meter and 70 cm repeaters, but just can't find any intelligent activity on them any longer, then listen up! D-Star is gaining in popularity and you are missing out on the fun. Read on to learn about the basics of D-Star and why there is lots of activity there. I won't tell you what radio to buy here, or how to use your new D-Star radio. There are lots of resources on the internet for that. What I am going to explain is how D-Star is different from analog and why you might be interested in it if you are an analog repeater operator. I think you will find that it is worth giving D-Star a try.



A D-Star repeater operates similar to a regular analog FM repeater. It listens for your signal on an input frequency and retransmits your signal on an output frequency on the same band. The signal being generated from the D-Star radio is not an analog signal, but a digital signal.

The D-Star radio includes a chip which converts your voice directly from your microphone to a digital signal and the radio then transmits that digital signal to the repeater where it is retransmitted on output frequency. Other hams pick your signal up with their D-Star radio. Their radios decode the digital signal and your voice comes out on their radio.

The quality is excellent because your voice is being converted to a digital stream of data right inside your radio and is being converted back to analog audio right inside your buddies radio.

There is no picket fencing like there is in the analog FM modes, but there is R2D2. What is R2D2? Well, let's just say if you are a Star Wars fan you will recognize it when you hear it. As an added bonus, I have found that my signal seems to go further with D-Star than on analog FM. I am not sure if this is really the case, but I can tell you that I have had conversations through a repeater with 100% dead full quieting audio using my 5 watt HT and a repeater located 12 miles from my home.

All this would be enough to convince most people that D-Star is superior to regular analog FM, but that is not where the fun stops. The most exciting aspects of D-Star is gateways and reflectors.

What is a gateway? A gateway is simply an entrance point, doorway, port, etc. to the internet. All D-Star repeaters come with a gateway to connect the repeater to the internet. Why would you want to do that? To link to a reflector on the internet.

A reflector can be thought of as a repeater that is located somewhere on the internet that has unlimited inputs and outputs. Multiple repeaters can be connected to one reflector and every signal that is received on one repeater is transmitted on all repeaters linked to the reflector.

Let's look at one scenario as an example. Lets say Ken, KE3C (that's me) is transmitting on the input frequency of the K3PDR 2 meter repeater, My buddy Andy, KD3RF is located in Munich, Germany and he is listening on the DB0TVM repeater. Both repeaters are linked to reflector REF020A (20 alpha). When I key up and give my call, my call is heard by all stations monitoring the reflector 20A. That includes the K3PDR repeater, the DB0TVM in Germany repeater and any other repeater connected to 20 alpha. Andy hears my call because the repeater he is monitoring is linked to 20 alpha and he comes back to me and we have a conversation. Pretty cool! At least I think so.

Any repeater linked to the reflector 20A through its gateway can hear any other repeater or station connected to the reflector. Not only that, but on most repeaters, operators can send a command to the repeater to link the repeater to any number of gateways.

If that were not enough, it gets even more interesting. These days there is a device called a Digital Voice Access Point or DVAP for short that any operator can connect directly to their home personal computer to access a reflector directly. A DVAP is just a small, low power 2 meter or 70 centimeter transceiver that connects to the USB port of your personal computer and acts as kind of a personal simplex repeater with built in gateway.

The way it works is very similar to a repeater, except it does not repeat. It receives the signal from your D-Star radio as a digital stream much like a repeater would and it transmits that stream through the gateway to the reflector. The reflector then reflects the signal out to the other repeaters or DVAPs connected to it and your voice comes out on all repeaters and DVAPs that are connected to the reflector. The nice thing about the DVAP is that the DVAP is a personal D-Star hotspot. That allows you, the operator, to have excellent coverage to whatever D-Star repeat or reflector you like. You send commands to the dvap to link and unlink from whatever reflectors or repeaters you want to talk through and they hear you instantly.

Many hams are using the DVAP and hooking the DVAP up to a raspberry pi computer. The

raspberry pi is a credit card sized computer that runs the Linux operating system and cost about \$55.00 for the computer and a case.

The DVAP is hooked up to the raspberry pi via the USB cable. Open source software written by G4KLX is run on the raspberry pi which communicates with the DVAP and controls the reflector and repeater linking and forwards your signal to the reflector or repeater you choose. With this setup the operator has an instant D-Star portable hotspot that can be linked to any reflector or repeater.

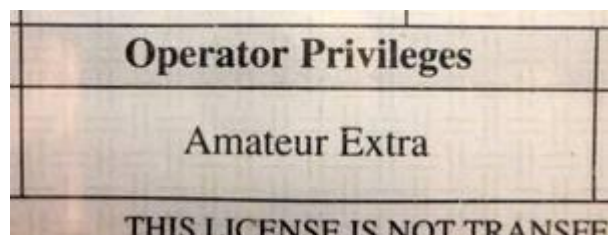
I have personally even used this setup in my car. I connect my raspberry pi to my cell phone via the wifi hotspot feature on my phone and I have a 100% portable mobile hotspot. I know....I know...it is not real radio if I am using the cell phone network.....but it is fun.

There are many popular D-Star reflectors on the internet. My favorite is REF001C. You can link to it by sending REF001CL to any repeater of DVAP using your D-Star radio. Reflector 1 Charlie is the international super reflector. It is always active with hams from all parts of the world. It is not uncommon to hear hams from as far away as Japan, Australia and New Zealand on this reflector.

In the North Eastern US many repeaters are linked on a schedule or permanently to reflector 20A. In the Philadelphia region, many repeaters are linked to reflector 20A 24 hours a day 7 days a week. Other repeaters do not link to reflectors on any schedule and are available for any ham operator to link to other reflectors or repeaters as they would like. The K3PDR repeater on 2 meters (K3PDR B) is usually linked to reflector 20A and the 70 cm repeater (K3PDR C) is usually open for linking as needed by all hams. My hope is that this little description of the D-Star radio network will peak your interest and D-Star and someday I will hear you giving me a call on the air. I lurk around on reflector 20A. I look forward to hearing your melodious tones calling my call someday.

Why You Should Get Your Extra Class License

By Dan Romanchik, KB6NU



The Amateur Extra Class license is the highest class of license in the United States, and perhaps the world. Many hams—even hams that live outside the U.S.—aspire to pass the test and be awarded one.

There wasn't always an Amateur Extra Class license. The Extra class license, as we know it today, was created as part of the 1951 license restructuring, that also created the Novice and Technician Class licenses. (In 1951, the Novice license was the “beginner’s license.” To get a Technician Class license, you had to pass the written test that General Class operators had to pass.)

Although it gave an operator no additional privileges, to get an Extra Class license, one had to:

- * Pass a 20 wpm code test (Generals had to pass only a 13 wpm code test).
- * Pass a longer and more difficult written examination than the General Class exam.
- * Have at least two years of experience as a licensed radio amateur.

Today, without the code test and the experience requirement, many hams upgrade to Extra Class as soon as they can. Some even pass the Technician Class, General Class, and the Amateur Extra Class exams in a single test session.

So, what's the attraction? Why should you upgrade to Extra?

One of the reasons that you should upgrade to Extra is that you get use of the entire 80 m, 40 m,

20 m, and 15 m bands. Portions of those bands, such as 3.6 – 3.7 MHz in the 75m band and 14.150 – 14.175 Mhz in the 20m phone band, are reserved exclusively for Extra Class licensees. Extra Class operators also have exclusive privileges in the CW portions of the 80 m, 40 m, 20 m, and 15 m bands. These are the frequencies where the DX stations hang out.

Another reason to get your Extra Class license is that only Extra Class licensees can administer General Class and Extra Class license exams. General Class operators can become Volunteer Examiners (VEs), but they are only allowed to administer Technician Class exams.

Another reason you might want to get an Extra Class license is to get a fancy vanity callsign. Only Extra Class operators can apply for 1×2 or 2×1 callsigns, such as W8RP or KT8K. A short, snappy callsign can help you work more DX or improve your contest scores.

Whatever your reason, studying for the Extra Class exam will open your eyes to many aspects of the hobby that you may not be familiar with. And, as you work your way through the material, you'll learn things that make you a better amateur radio operator and enable you to enjoy the hobby more. It's not easy, but in the end, an Extra Class license will help you have more fun with amateur radio.

Dan, KB6NU is the author of the "No Nonsense" line of amateur radio license study guides, a prolific blogger (www.kb6nu.com), and an active CW operator in the Extra Class portion of the HF bands. If you have any comments, questions, compliments, or complaints, email him at cwgeek@kb6nu.com.

Amateur Calendar

May 1- Ripley Hamfest

May 1- March of Dimes

May 3- Corry Club Meeting

May 5- RAE Club Meeting

May 7- 10-10 International Spring Contest, CW See
www.ten-ten.org/index.php

May 7- 7th Call Area QSO Party. See
ws7n.net/7QP

May 7- Indiana QSO Party. See
www.hdxcc.org/inqp/rules.html

May 7- Delaware QSO Party. See
www.fsarc.org/qsoparty/rules.htm

May 7- New England QSO Party. See
www.neqp.org/rules.html

May 8- Mothers Day

May 10- Wattsburg Club Meeting

May 12- Union City Club Meeting

May 18- Conneaut Club Meeting